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# Holdouts and wage bargaining in The Netherlands

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## Abstract

In this paper we give an exploratory empirical analysis of the relationship between holdouts and wage bargaining in The Netherlands. Holdouts, the negotiation periods between expiration of an old contract and the signing of a new contract, appear to have a negative effect on the negotiated wage increase.

**Keywords:** Holdouts; Wage bargaining

**JEL classification:** J30; J50

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## 1. Introduction

While most of the empirical literature on industrial disputes is about strikes, delays in wage bargaining have been largely neglected. Often, agreements cannot be struck before existing contracts expire. The wage negotiation period between the expiration of the old contract and the signing of a new contract is called a 'holdout'. During a holdout the terms of the old contract apply.

The economic content of a holdout is not clear and not much research has been done in this area. Cramton and Tracy (1992) present a theoretical model in which holdouts are used by unions to obtain information from firms at lower costs than strikes. Holden (1994) presents a theoretical analysis of the effects of holdouts and nominal wage rigidity. We are not aware of an empirical analysis of holdouts.

Our paper contributes to the scarce literature on holdouts, focusing on the economic content of a holdout in The Netherlands. In our empirical analysis we investigate whether or not holdouts have an effect on wage bargaining. We analyse the relationship between holdouts and outcomes of wage negotiations using a unique panel dataset on 150 settlements of firms and industries for the period 1975–1987 which we derived from administrative files of the Dutch Ministry of Social Affairs and Employment.

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## **2. Industrial relations in the Dutch labour market**

The Netherlands experience an annual wage bargaining cycle. In September the government presents its budget and its macroeconomic forecasts to Parliament. Taking this into account, the managements of union and employers' federations consult their associated trade unions and employer associations on the common policy for the national negotiations. Union federations participate in national consultative bodies and support the trade unions in coordination of the wage bargaining process. Actual wage bargaining starts in the new calendar year and is the responsibility of the trade unions, which are organised by industry. In the 1980s about 200 industry contracts regulated wages for approximately 80% of the workers under collective contracts. The employment terms for the remaining 20% of the workers were covered in 600 firm contracts since most larger firms (multinationals) have their own collective agreements.

In The Netherlands collective bargaining covers the employment terms of 70–80% of the labour force in the private sector. Employer coverage approximates some 90% of all firms. These figures indicate that collective bargaining has a large impact on wage formation. There do not appear to be many serious conflicts between employers and unions. Strike activity in The Netherlands is low compared with other European countries. In the 1980s, for example, 1.4 working days per 100 workers were lost due to strikes, whereas this was 3.5, 12.5 and 37.8 for Germany, the United States and the United Kingdom, respectively (Layard et al., 1991).

There are several possible explanations for the existence of holdouts. A holdout may be a form of industrial action if it is a close substitute for a strike. Then, a holdout may be considered as a means for unions to collect information about the profitability of firms. A holdout is thus a mechanism that allows workers to extract higher wages from more profitable employers. An early model of industrial disputes is Hicks' theory of strikes which first appeared in Hicks (1932). Modern analysis of strike activity started with Ashenfelter and Johnson (1969). A key prediction of the strike literature is that negotiated wages and strike durations are negatively correlated (Card, 1990, indicates that in empirical studies this negative relationship is not always found). If that were the case, then negotiated wage increases and holdouts would also be negatively correlated.

However, holdouts may also be determined by specific bargaining agendas. In the Dutch setting of industrial relations, wage formation is a time-consuming process. Negotiation spells may be long due to mutual and internal coordination. Draft agreements need to be discussed among union members and between union negotiators and their management. Bargaining issues may be so complex in the juridical sense that they take considerable time to draft the final text. Also, since new agreements are commonly backdated to the date at which the former contract elapsed, there is little pressure to shorten holdouts. The variation between holdouts in different collective bargains would then be explained by the bargaining agenda. For instance, those agreements that need to be struck for longer (two-year) periods, or those with many technical details, take longer than those for one-year contracts with a simpler agenda. If holdouts are lengthy because of such procedures, then they should not be given much attention from an economic point of view. They can last long because they have no serious consequences.

### 3. Data

We have information about holdouts and wage increases for wage settlements gathered from administrative files of the Ministry of Social Affairs and Employment. Our data are on individual collective agreements of seven industries and eight firms, which are at the industry level (1979 numbers of employees who are covered by collective agreements in parentheses): Metal industry (250,000); Cigar industry (3,400); Printing industry (41,000); Manufacture of dairy products (21,000); Breweries (1,200); Manufacture of printing ink (2,600) and Insurance (35,000). At the firm level we have: Philips (65,000); Unilever (9,600); Douwe Egberts (3,500); Heineken (4,700); Akzo (5,000); Chemiefarma (550); AMEV (2,450) and DSM (13,000).

The 15 bargaining pairs give us 150 data points in a balanced panel dataset covering the period 1975–1987, with no observations for the years 1976, 1981 and 1984. For the year 1976 this is due to government interference, when the government decided that changes in on-going contracts were not allowed. In 1981 and 1984 there were no negotiations because of the evolving biannual agreements in 1980 and 1983. The low strike activity in The Netherlands is reflected in our sample. In none of the firms and industries was there a strike in the period of analysis.

The situation in the labour market in the 1970s differed from the one in the 1980s. As in many other European countries economic conditions in The Netherlands deteriorated dramatically in the early 1980s. The average unemployment rate in the 1970s was 4.5%, while it was 13.9% in the period 1980–1987. There are also remarkable differences between the average holdouts and wage increases in the 1970s and those in the 1980s. As indicated in Table 1, in the 1970s holdouts lasted 5–7 months, whereas in the 1980s this was 8–10 months.

Holdouts are relatively long compared with the United States. Cramton and Tracy (1992), who define a holdout as the time between the expiration of the former contract and the time of a principle agreement, find an average holdout of about 1 month. Our definition of a

Table 1  
Holdouts, average initial wage increases and wage cost increases in The Netherlands (standard deviations)<sup>a</sup>

	Holdout (months)	Initial wage increase (%/year)	Wage cost increase (%/year)
1975	5.9 (3.7)	2.6 (1.8)	10.2 (3.6)
1977	6.1 (3.6)	1.8 (0.5)	9.7 (1.4)
1978	6.8 (3.7)	0.6 (0.5)	5.1 (1.9)
1979	7.4 (4.0)	0.3 (0.5)	5.7 (2.8)
1980	10.4 (4.3)	1.2 (0.7)	2.6 (1.4)
1982	8.3 (4.6)	0.6 (1.1)	5.9 (8.5)
1983	9.7 (5.4)	0.1 (0.2)	3.0 (3.5)
1985	8.3 (3.5)	1.1 (0.8)	4.2 (2.5)
1986	9.0 (3.6)	0.9 (0.8)	3.3 (2.4)
1987	8.6 (3.1)	1.0 (0.7)	2.3 (1.3)

<sup>a</sup> Based on the 15 bargaining pairs mentioned in the paper.

holdout not only covers the negotiation period but also the time-consuming period between the time of a principle agreement and the moment of registration at the government office. This period in which the final text is drafted and the contract is signed averages 2–3 months.

From Table 1 it also appears that wage increases in the 1980s were smaller than those in the 1970s. We use two indicators of wage increase. The first indicator is the initial contract wage increase, which is equivalent to the real wage increase per worker. The second indicator is the wage cost increase, which includes the initial contract wage increase, the price indexation of the wage and wage costs due to, for example, an increased number of holidays and reduced number of working hours.

#### 4. Empirical analysis

Wage increases may be determined by changing macroeconomic conditions like unemployment and economic growth. Furthermore, they may be determined by bargaining-pair-specific circumstances which do not change over time. To represent the first type of effects we use calendar-time-specific dummies; for the second type of effects we use bargaining-pair-specific dummies.

We use a simple linear specification of the wage growth equation:

$$w_{i,t} = \beta_0 + \beta_{1t} \cdot d_i + \beta_{2t} \cdot d_t + \beta_3 \cdot s_{i,t} + \mu_{i,t},$$

where  $w$  denotes the annual wage increase (%),  $s$  the holdout (months) and the  $d$ 's represent dummy variables. Furthermore,  $i$  is a subscript for bargaining pair (1, ..., 15) and  $t$  a subscript for bargaining year (1, ..., 10), while  $\mu_{i,t}$  is the disturbance term. In this equation the  $\beta_i$ 's represent bargaining-pair fixed effects and the  $\beta_t$ 's the calendar-time fixed effects. The equation is estimated using ordinary least squares (OLS).

The estimation results are shown in Table 2. It appears that at conventional levels of significance holdouts have a negative effect on the initial wage increases. The estimation results with or without bargaining-pair fixed effects are almost the same, indicating that there are hardly any differences in wage increases between bargaining pairs. After introducing calendar-time fixed effects in model 3 the explanatory power of the model increases, which indicates that macroeconomic determinants have an important effect on wage increases at the level of individual bargaining units.

The introduction of calendar-time fixed effects in model 3 causes the coefficient on holdouts to decrease. Nevertheless, the coefficient is still significantly smaller than zero at conventional levels of significance. Adding bargaining-pair fixed effects to the equation with calendar-time fixed effects in model 4 does not improve the estimation results. From  $F$ -test statistics presented in Table 2 it also appears that calendar-time fixed effects are relevant while bargaining-pair fixed effects are not. Using our preferred model 3, we conclude that the holdout effect is rather small: a holdout of 2 months lowers wage increases by 0.1%.

To account for possible endogeneity of the holdouts, model 3 with time-dependent fixed effects is also estimated using two-stage least squares with lagged holdouts, lagged wage increase and the calendar-time dummies as instruments. It appears from Table 2 that the

Table 2  
Estimation results; coefficient on holdouts (standard errors)<sup>a</sup>

	Initial wage	$R^2$	Wage cost	$R^2$
<i>OLS</i>				
1. No fixed effects	−0.071 (0.019)	0.08	−0.31 (0.07)	0.13
2. Bargaining-pair fixed effects	−0.089 (0.024)	0.04	−0.36 (0.08)	0.10
3. Calendar-time fixed effects	−0.047 (0.016)	0.45	−0.13 (0.05)	0.55
4. Both types of fixed effects	−0.055 (0.020)	0.43	−0.10 (0.06)	0.56
<i>TSLS</i>				
5. Calendar-time fixed effects	−0.069 (0.036)	0.44	−0.42 (0.13)	0.44
<i>F</i> -test statistic, models 3 and 4 <sup>b</sup>		0.74		1.28
<i>F</i> -test statistic, models 2–4 <sup>c</sup>		11.59		16.94

<sup>a</sup> The  $R^2$  is corrected for degrees of freedom; all OLS estimates are based on 150 data points; the TSLS estimate is based on 149 data points since for one of the bargaining pairs information before 1975 is missing.

<sup>b</sup> At 5% level critical value  $F(14, 126) = 1.77$ .

<sup>c</sup> At 5% level critical value  $F(9, 126) = 1.95$ .

estimated coefficient of the holdout does not change a lot, so the estimation results are quite robust.

We also estimated the effect of holdouts on wage-cost increases, finding similar results. Here, too, the bargaining-pair fixed effects have no significant effect on the wage-cost increase. In all estimates holdouts have a negative effect on wage-cost increases. The holdout coefficient for the wage-cost increase – in absolute terms – is larger than that of the initial wage increase. A holdout of 2 months lowers wage-cost increase by 0.2%. This indicates that holdouts not only have a negative effect on the initial wage increase but also on the other parts of the wage costs.

## 5. Conclusions

In the empirical analysis we find small but significant effects of holdouts on wage increases. It is clear that holdouts are more than a random number determined by the length of administrative procedures. Probably, to some extent holdouts are substitutes for strikes.

## References

- Ashenfelter, O. and G.E. Johnson, 1969, Bargaining theory, trade unions and industrial strike activity, *American Economic Review* 59, 35–49.
- Card, D., 1990, Strikes and bargaining: A survey of the recent empirical literature, *American Economic Review*, AEA Papers and Proceedings 80, 410–415.
- Cramton, P.C. and J.C. Tracy, 1992, Strikes and holdouts in wage bargaining, theory and data, *American Economic Review* 82, 100–121.

Hicks, J.R., 1932, The theory of wages (Macmillan, London).

Holden, S., 1994, Wage bargaining and nominal rigidities, *European Economic Review* 38, 1021–1039.

Layard, R., S.J. Nickell and R. Jackman, 1991, Unemployment. Macroeconomic performance and the labour market (Oxford University Press, Oxford).